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The Cell Membrane

**Background**

All cells are contained by a cell membrane. The cell membrane is the outer protective layer of cell that provides protection and passage of materials. Cell membranes are semi permeable, meaning it allows some materials can cross into the cell, but others cannot.

If a cell is viewed in cross section, it resembles the diagram at the right.

Its membrane faces water on the exterior and on the interior. Molecules called *phospholipids* make up the basic structure of the cell membrane. How do these molecules arrange themselves so that the cell membrane is held together?

It turns out that phospholipid molecules contain two regions (pictured in the diagram below): the “head” which tends to orient towards water, and the “tail” which tends to move away from water.   
  
**Phospholipid Model**

Water

   
  
   
 Water